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IL n.131
EDIZ. 20/10/2009

Bingo

I **ATTUATORE ELETTROMECCANICO IRREVERSIBILE PER CANCELLI A BATTENTE**

GB **IRREVERSIBLE ELECTROMECHANICAL ACTUATOR FOR SWING GATES**

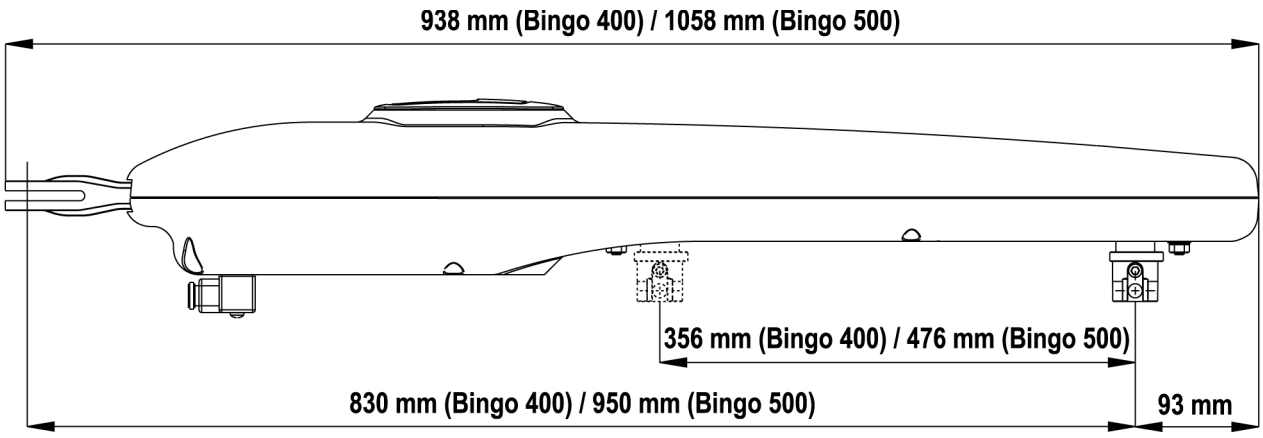
F **OPERATEUR ELECTROMECANIQUE IRREVERSIBLE POUR PORTAILS BATTANTS**

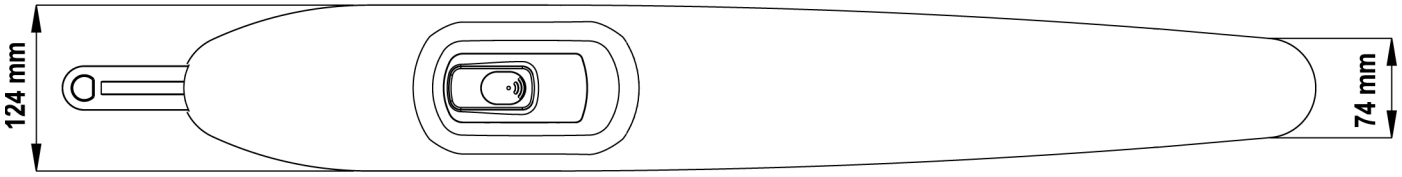
E **OPERADOR ELECTROMECÁNICO IRREVERSIBLE PARA CANCELAS BATIENTES**

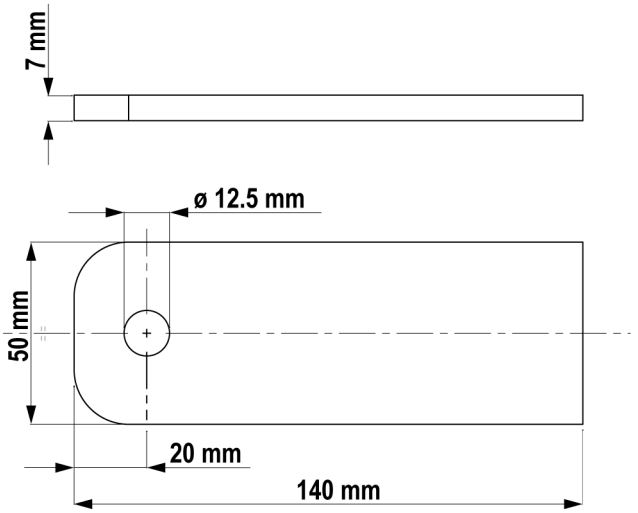
P **ACTUADOR ELECTROMECÂNICO IRREVERSÍVEL PARA PORTÕES DE BATENTE**

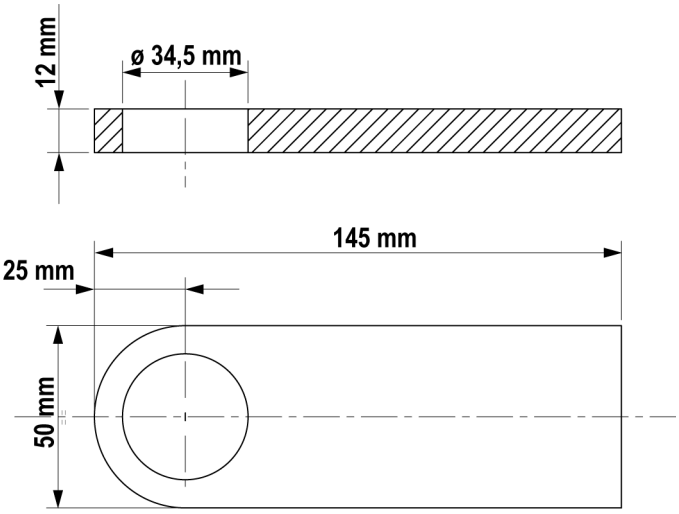
D **NICHT UMKEHRBARER ELEKTROMECHANISCHER ANTRIEB FÜR FLÜGELTORE**

NL **ELEKTROMECHANISCHE, ONOMKEERBARE LINEAIRE MOTOR VOOR HEKKEN MET VLEUGELS**


938 mm (Bingo 400) / 1058 mm (Bingo 500)
356 mm (Bingo 400) / 476 mm (Bingo 500)
830 mm (Bingo 400) / 950 mm (Bingo 500)
93 mm


124 mm
74 mm


7 mm
ø 12.5 mm
50 mm
20 mm
140 mm


12 mm
ø 34,5 mm
145 mm
25 mm
50 mm

For any installation problem please contact our Customer Service at the number +39-0172.812411 operating Monday to Friday from 8:30 to 12:30 and from 14:00 to 18:00.

V2 has the right to modify the product without previous notice; it also declines any responsibility to damage or injury to people or things caused by improper use or wrong installation.

⚠ **Please read this instruction manual very carefully before installing and programming your control unit.**

- This instruction manual is only for qualified technicians, who specialize in installations and automations.
- The contents of this instruction manual do not concern the end user.
- Every programming and/or every maintenance service should be done only by qualified technicians.

AUTOMATION MUST BE IMPLEMENTED IN COMPLIANCE WITH THE EUROPEAN REGULATIONS IN FORCE:

EN 60204-1 (Machinery safety electrical equipment of machines, part 1: general rules)
EN 12445 (Safe use of automated locking devices, test methods)
EN 12453 (Safe use of automated locking devices, requirements)

- The installer must provide for a device (es. magnetotermical switch) ensuring the omnipolar sectioning of the equipment from the power supply.
  The standards require a separation of the contacts of at least 3 mm in each pole (EN 60335-1).

- The plastic case has an IP55 insulation; to connect flexible or rigid pipes, use pipefittings having the same insulation level.

- Installation requires mechanical and electrical skills, therefore it shall be carried out by qualified personnel only, who can issue the Compliance Certificate concerning the whole installation (Machine Directive 98/37/EEC, Annex IIA).

- The automated vehicular gates shall comply with the following rules: EN 12453, EN 12445, EN 12978 as well as any local rule in force.

- Also the automation upstream electric system shall comply with the laws and rules in force and be carried out workmanlike.

- The door thrust force adjustment shall be measured by means of a proper tool and adjusted according to the max. limits, which EN 12453 allows.

- We recommend to make use of an emergency button, to be installed by the automation (connected to the control unit STOP input) so that the gate may be immediately stopped in case of danger.

- The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.

- Children being supervised do not play with the appliance.

which can be consulted at the following web site:
www.v2home.com

DECLARATION OF CONFORMITY

The following statement is applicable only if the below listed equipments are employed in accordance with the purpose indicated in the instruction manual.

Company:
V2 SPA
Corso Principi di Piemonte 65
12035 RACCONIGI -ITALY
Tel. +39 01 72 82 10 11
Fax +39 01 72 82 10 50

Contact person:
Cosimo De Falco
Chief Executive Officer

V2 SPA declares that the series of BINGO actuators are in conformity with the provisions of the following EC directives:

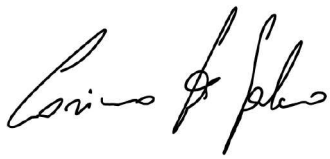
73/23/EEC low voltage directive
89/366/CEE electromagnetic compatibility directive
98/37/EEC machine directive

Note: Declares that the above mentioned devices may not be operated until the machine (automated gate) is identified, CE-labeled, and declared to be compliant to the specifications of Directive 89/392/EEC and following modifications.

The person in charge for the machine start-up must provide the following records:

- Technical specification paper
- Declaration of conformity
- CE-labeling
- Testing record
- Maintenance record
- Operation manual and directions

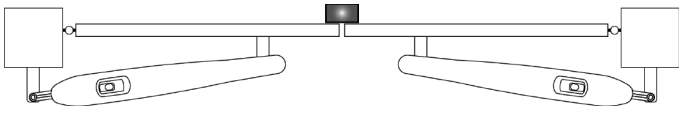
Racconigi 20/10/2009
V2 SPA legal representative
Cosimo De Falco



PREPARATORY STEPS

The new series of actuadors BINGO, has been devised to serve gates up to 500 Kg with leaf up to 4,5 meters wide (look at the table technical data). Before proceeding with the installation, please make sure that your gate opens and closes freely, and that:

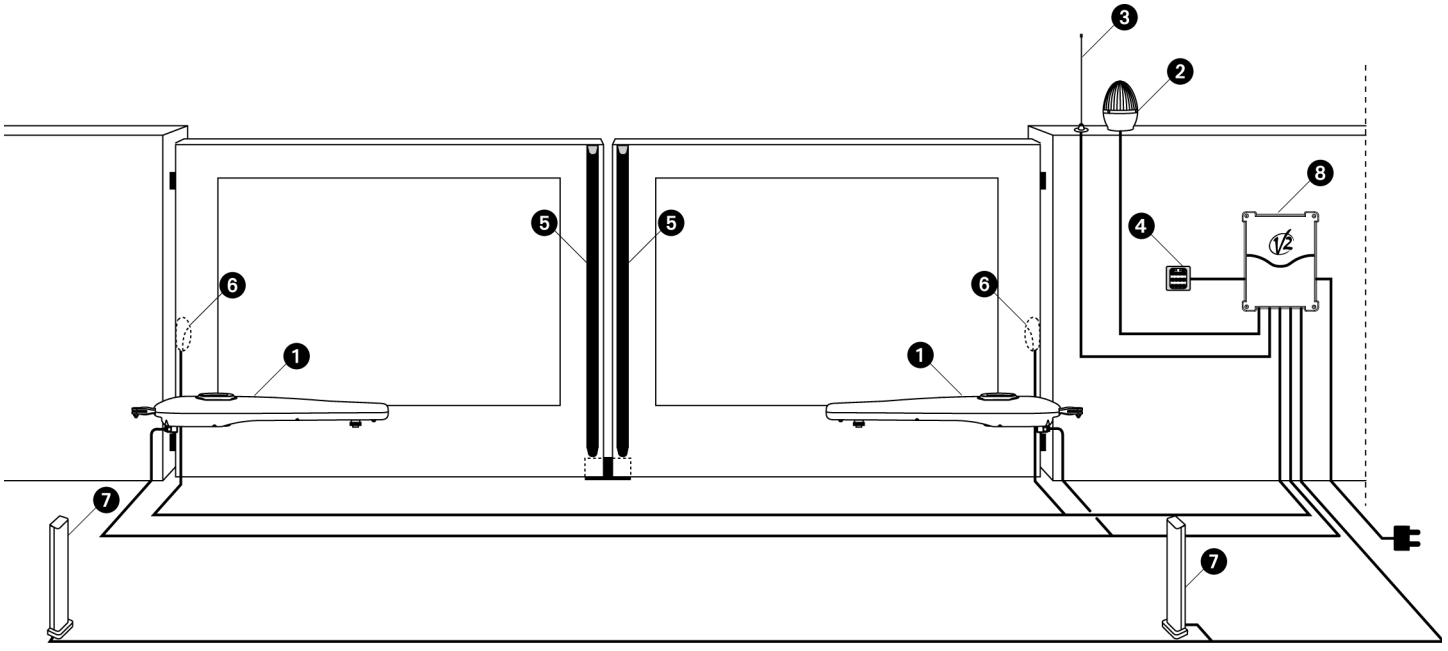
- Hinges and pins are in optimum condition and properly greased.
- No obstacles are within the moving area.
- There is no friction with the ground or between the leaves.
- Your gate is equipped with a central latch.



BINGO400 - BINGO500 - BINGO400-120V - BINGO500-120V BINGO400-24V - BINGO500-24V	Opening and closing mechanical stop
BINGO400 02- BINGO500 02	Opening and closing mechanical stop Opening and closing electrical limit switch Built-in trigger capacitor

		BINGO400 BINGO400 02	**BINGO400 120V**	**BINGO500 BINGO500 02**	**BINGO500 120V**	**BINGO400 24V**	**BINGO500 24V**
Max. leaf lenght	m	3,5	3,5	4,5	4,5	3,5	4,5
Max. leaf weight	Kg	400	400	500	500	350	400
Power supply	VAC - Hz	230 - 50	120 - 60	230 - 50	120 - 60	24 VDC	24 VDC
Idling current	A	2	4	2	4	1,8	1,8
Full load current	A	3,2	6	3,2	6	5	5
Maximum Power	W	480	480	480	480	120	120
Capacitor	µF	8	2 x 10	8	2 x 10	-	-
Max travel	mm	370	370	490	490	370	490
Operating speed	m/s	0,017	0,018	0,017	0,018	0,010 ÷ 0,018	
Maximum thrust	N	1800	1800	1800	1800	1800	1800
Working temperature	°C	-30 ÷ +60	-30 ÷ +60	-30 ÷ +60	-30 ÷ +60	-30 ÷ +60	-30 ÷ +60
Protection	IP	34	34	34	34	34	34
Working cycle	%	30	30	30	30	80	80
Motor weight	Kg	11	11	12	12	11	12

INSTALLATION LAYOUT



❶ BINGO actuator	cable 4 x 1 mm²
❷ Blinker	cable 2 x 1,5 mm²
❸ Aerial	cable RG-58
❹ Key or digital selector	cable 3 x 0,5 mm²
❺ Safety edge (EN 12978)	-

❻ Internal photocells	cable 4 x 0,5 mm² (RX) cable 2 x 0,5 mm² (TX)
❼ External photocells	cable 4 x 0,5 mm² (RX) cable 2 x 1 0,5 mm² (TX)
❽ Control unit	cable 3 x 1,5 mm²

To carry out a proper installation of the operator parts as well as to ensure the best automation performance, the measurement levels shown in the following table shall be complied with. Change the gate structure to adapt it to one of the cases in the table, if necessary.

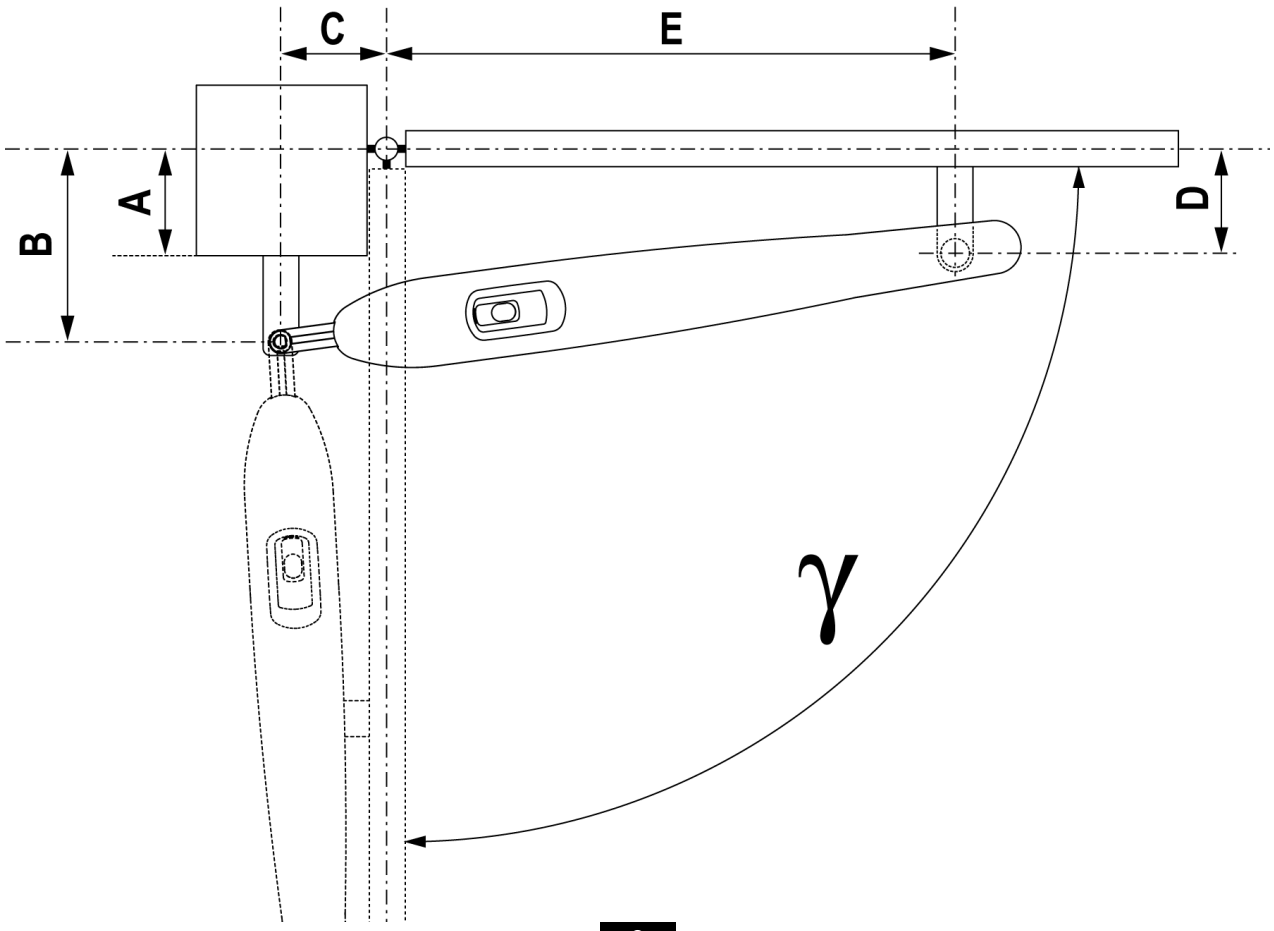
⚠ **WARNING: In the case of leaf longer than 2,5 metres, an electric lock must be fitted to ensure an efficent closig.**

⚠ **WARNING: In order to avoid contatcts of the operator against the shutter, it is necessary to keep as much exactly as possible the height D taking into consideration a margin between 0 and +5mm.**

BINGO400

γ	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
90°	20	140	130	120	695
	30	150	160	140	665
	40	160	160	140	665
	50	170	160	140	665
	60	180	150	140	675
	70	190	150	120	675
	80	200	140	120	685
	90	210	130	120	690
	100	220	125	120	695
	110	210	130	120	690
100°	20	140	165	120	660
	30	150	160	120	660
	40	140	160	120	660
	50	150	160	120	660
	60	160	155	120	660
	70	160	145	110	670

γ	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
90°	40	160	150	140	795
	50	170	150	140	795
	60	180	160	140	785
	70	190	160	140	785
	80	200	160	140	785
	90	210	160	140	785
	100	220	160	140	785
	110	230	160	140	780
	120	240	160	140	780
	130	250	160	140	780
	140	260	160	140	780
	150	270	150	140	790
	160	280	150	140	785
100°	40	160	190	140	755
	50	170	190	140	755
	60	180	190	140	755
	70	190	190	140	755
	80	200	190	140	755
	90	210	190	140	755
	100	220	190	140	755
	110	230	185	140	760
	120	220	190	140	750
	130	230	185	140	755
110°	40	160	220	140	725
	50	170	220	140	725
	60	180	220	140	725
	70	170	210	130	730
	80	180	205	130	735

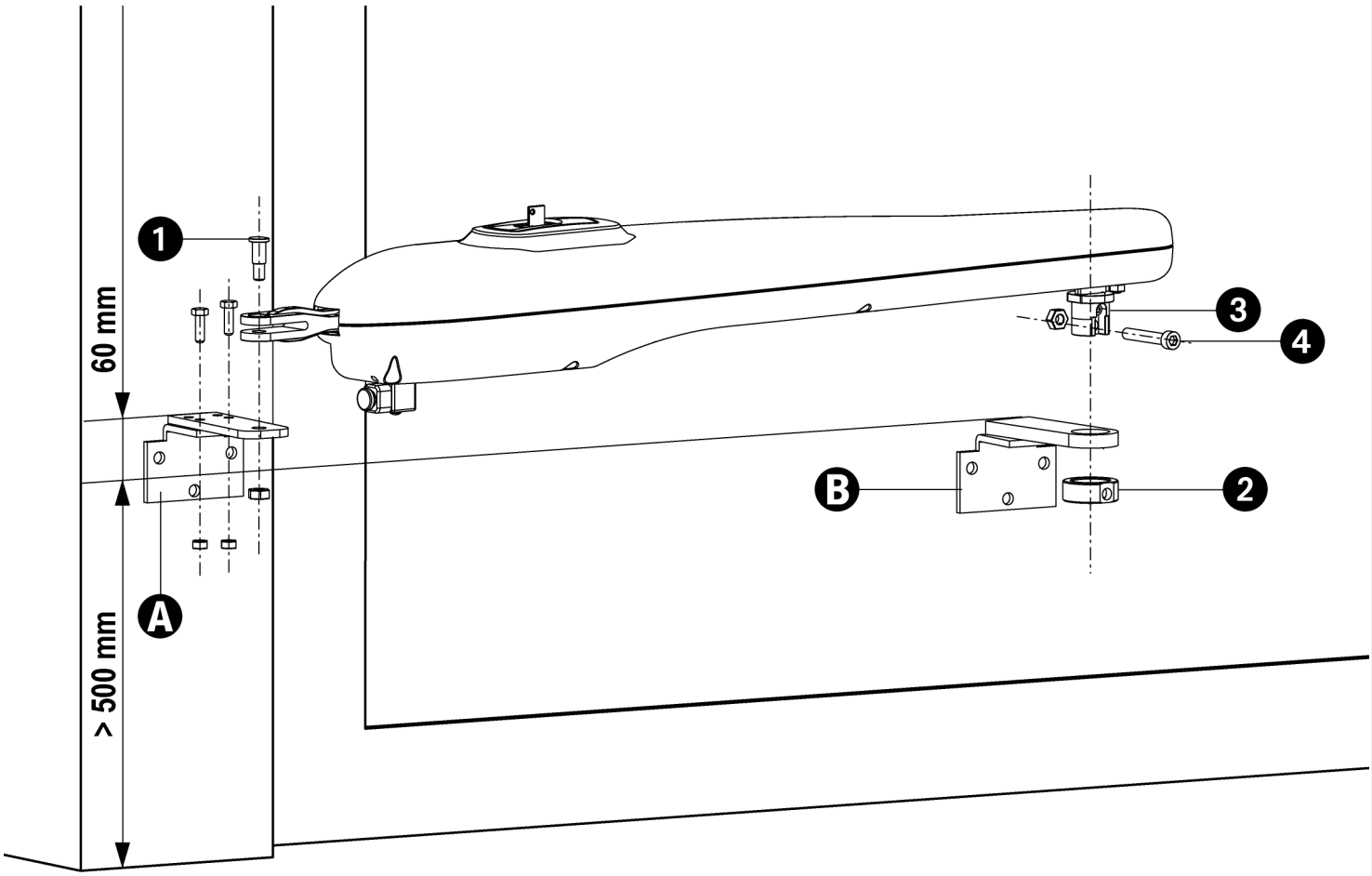


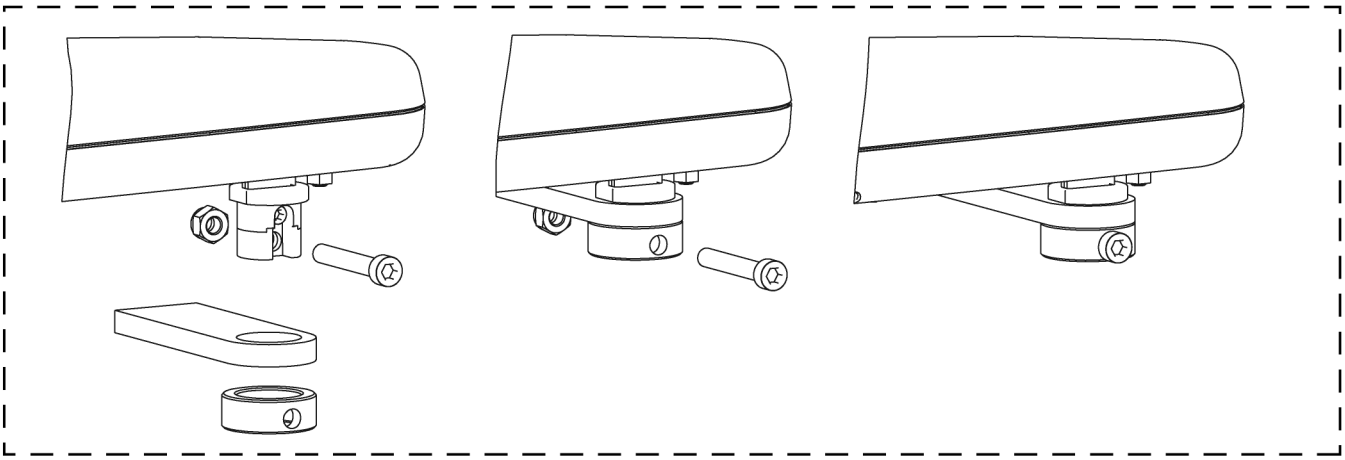
Choose measures referring to the table you can find in the previous page, mark them on the pillars and continue as follows:

- Fix brackets on the pillars and on the gate.
- Close the swing.
- Unlock the actuators.
- Position BINGO on the brackets and fix the pin no. 1 with self-locking nut (see the picture).
- Insert the ring nut 2, paying attention to the side of the entrance.
- Make that the hole for the fastening of the screw n. 4 is on the lower side.

side would be very difficult because of the conicity of the hole and the bush 3. An over forcing may cause the damage of some components.

- Once inserted correctly the ring nut 2, fix it on the bush 3 using the screw 4 with its self-blocking nut.
- **<u>Close the self-blocking nut before hand moving the leaves.</u>**
- Try more times to hand open and close the leaves, checking that there are no frictions between the actuator and the structure of the gate.





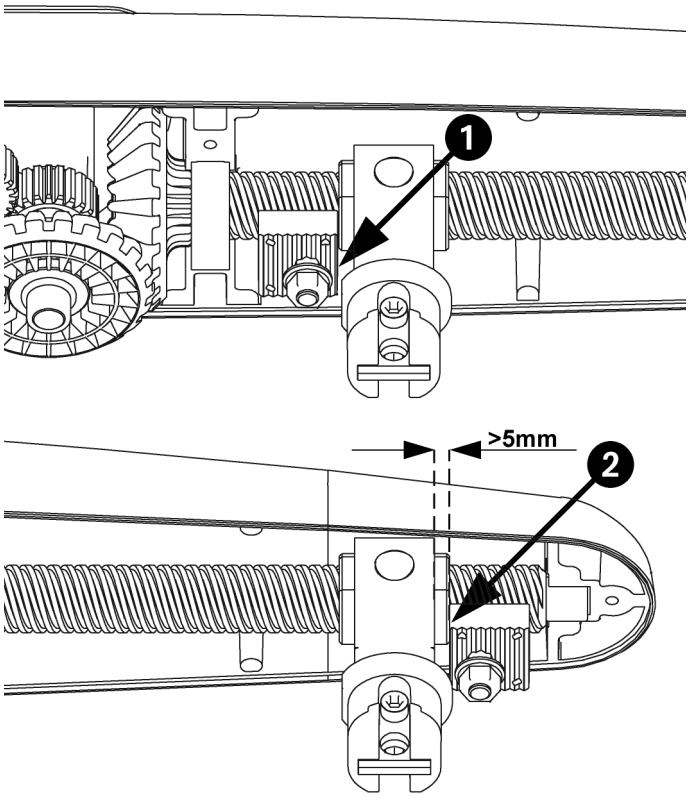
Versions WITHOUT electric limit switch
To adjust the limit switch, please do as follows:

- Open the swing as much as possible and position the mechanical stop no. 1 in contact with the female screw.
- Fasten the mechanical stop fixing the bolt using a 13 mm spanner.
- Move the leave in closing position, then position the mechanical stop 2 next to the nut (keep a distance of at least 5 mm).

⚠ **PLEASE NOTE: Stop No. 2 must only be used for installations with no closure stop, or to intervene as a result of over-running under emergency conditions.**

Where the door has a mechanical stop, avoid setting stop No. 2 at the female screw end-stop when the gate is closing. The female screw could seize in such a way as to make it very difficult to release the Bingo.

- Fasten the mechanical stop fixing the bolt using a 13 mm spanner.



Versions WITH electric limit switch
As regards models equipped with electrical limit switches, the female screw stops 5mm before the mechanical stop; the electrical limit switch (already wired inside the motor) interrupts the motor power supply, to avoid unusefull stress and overheatings.

To adjust the limit switch, please do as follows:

- Open the swing as much as possible and position the mechanical stop no. 1 in contact with the female screw.
- Fasten the mechanical stop fixing the bolt using a 13 mm spanner.
- Close the swing as much as possible and position the mechanical stop no. 2 in contact with the female screw.
- Fasten the mechanical stop fixing the bolt using a 13 mm spanner.